

Appl. No. 10/049,976
Amdt. dated June 28, 2004
Reply to Office Action of June 3, 2004

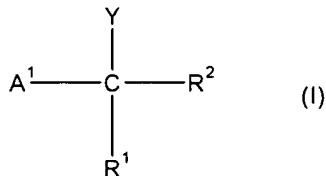
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-9 (Canceled)

10. (Currently Amended) A method of combating phytopathogenic fungi at a locus infested or liable to be infested therewith, which comprises applying to the locus a compound of the general formula I:



wherein:

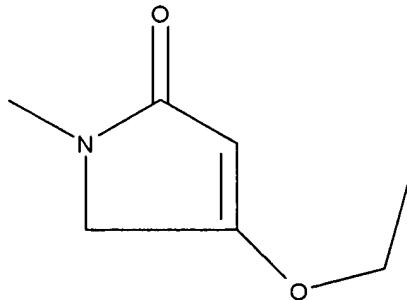
A^1 is 2-pyridyl substituted with from one to four moieties independently selected from the group consisting of halogen and haloalkyl, provided that at least one moiety is haloalkyl;

Y is a moiety selected from the group consisting of $-L-A^2$ and $-L^1-A^3$

wherein:

A^2 is selected from the group consisting unsubstituted or substituted phenyl, naphthyl, cyclopropyl, cyclohexyl, biphenyl, thienyl, imidazolyl, toyl tolyl, and

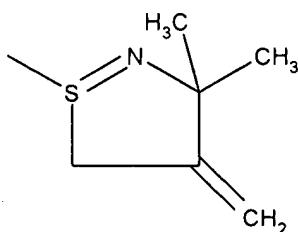
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wherein:

any substituents on A² are independently selected from the group consisting of alkyl, halogen, haloalkyl, phenoxy, alkoxy, nitro, acetyl, -PhSO₂, -NMe₂, -MeSO₂, -MeS, and -PrSO₂;

A³ is selected from the group consisting unsubstituted or substituted phenyl, biphenylyl, benzoyl, benzyloxycarbonyl, isopropoxycarbonyl, benzoxazolyl, pyridyl, 2-pyridyl, thiodiazolyl, triazolyl, fluorenyl, toyl, tetrazolyl, pyrimidinyl, imidazolyl, benzthiazolyl, quinolinyl, and



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wherein:

any substituents on A³ are selected from the group consisting of alkyl, halogen, haloalkyl, hydroxyl, and phenyl;

L is a 3-atom linker selected from the group consisting of -N(R⁵)C(=X)N(R⁶)-, -N(R⁵)C(=X)CH(R³)-, -CH(R³)N(R⁵)CH(R⁴)-, -CH(R³)N(R⁵)C(=X)-, -ON(R⁵)C(=X)-; wherein the left hand side of L is attached to the central carbon atom of formula I;

L¹ is a 4-atom linker selected from the group consisting of -N(R⁹)C(=X)X¹CH(R⁷)-, -N(R⁹)C(=X)CH(R⁷)CH(R⁸)-; -N(R⁹)C(R⁷)=C(R⁸)C(=X)-, -N(R⁹)C(=X)C(R⁷)(R⁸)SO₂-; and -N(R⁹)C(=X)C(R⁷)(R⁸)X¹; wherein the left hand side of L¹ is attached to the central carbon atom of formula I;

R¹, R², R³, R⁴, R⁷, and R⁸ are independently selected from the group consisting of halogen, R^b, and OR^b;

R⁵ and R⁶, which may be the same or different, are R^b;

R^b is selected from the group consisting of hydrogen, alkyl, and acyl;

X is selected from the group consisting of oxygen and sulfur;

X¹ is selected from the group consisting of oxygen and -N(R⁹)-;

R⁹ is R^b;

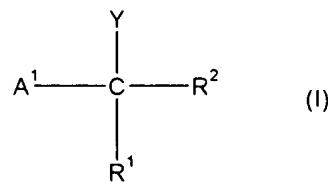
or a complex or salt thereof.

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11. (Previously Presented) The method of claim 10 wherein the compound is applied at an application rate of from 5 to 1000 grams per hectare.

12. (Previously Presented) A fungicidal composition comprising one or more compounds as defined in claim 10, or a complex or salt thereof, in admixture with an agriculturally acceptable diluent or carrier.

13. (Currently Amended) A compound of formula I as defined in claim 10 or a complex or salt thereof of the general formula I:



wherein:

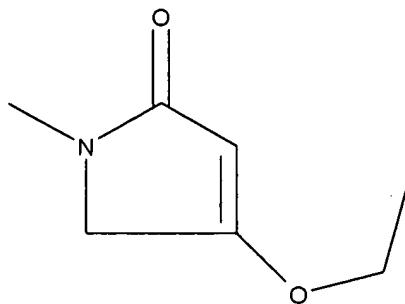
A^1 is 2-pyridyl substituted with from one to four moieties independently selected from the group consisting of halogen and trifluoromethyl, provided that at least one moiety is trifluoromethyl;

Y is a moiety selected from the group consisting of $-L-A^2$ and $-L^1-A^3$

wherein:

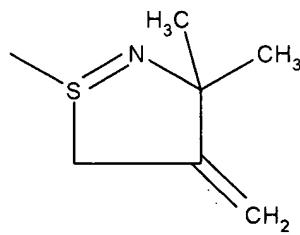
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A^2 is selected from the group consisting of unsubstituted or substituted phenyl, cyclohexyl, cyclopropyl, thienyl, imidazolyl, tolyl, and



wherein any substituents on A^2 are independently selected from the group consisting of alkyl, halogen, and haloalkyl;

A^3 is selected from the group consisting of unsubstituted or substituted phenyl, pyridyl, 2-pyridyl, thiodiazolyl, triazolyl, fluorenyl, tolyl, tetrazolyl, pyrimidinyl, imidazolyl, benzthiazolyl, quinolinyl, and



wherein any substituents on A^3 are selected from the group consisting of alkyl, halogen, haloalkyl, hydroxyl, and phenyl;

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L is a 3-atom linker selected from the group consisting of $-N(R^5)C(=X)N(R^6)-$,
 $-N(R^5)C(=X)CH(R^3)-$, $-CH(R^3)N(R^5)CH(R^4)-$, $-CH(R^3)N(R^5)C(=X)-$, $-ON(R^5)C(=X)-$; wherein
the left hand side of L is attached to the central carbon atom of formula I;

L^1 is a 4-atom linker selected from the group consisting of
 $-N(R^9)C(=X)X^1CH(R^7)-$, $-N(R^9)C(=X)CH(R^7)CH(R^8)-$, $-N(R^9)C(R^7)=C(R^8)C(=X)-$,
 $-N(R^9)C(=X)C(R^7)(R^8)SO_2-$, and $-N(R^9)C(=X)C(R^7)(R^8)X^1$; wherein the left hand side of L^1 is
attached to the central carbon atom of formula I;

R^1 , R^2 , R^3 , and R^4 are independently selected from the group consisting of hydrogen or alkyl;

R^5 , R^6 , R^7 , and R^8 are independently selected from the group consisting of hydrogen, alkyl, and acyl; and

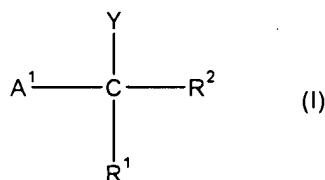
X is selected from the group consisting of oxygen and sulfur;

X^1 is selected from the group consisting of oxygen and $-N(R^9)-$; and

R^9 is selected from the group consisting of hydrogen and alkyl.

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14. (Currently Amended) A compound of formula I as defined in claim 10 or a complex or salt thereof of the general formula I:



wherein:

A¹ is 2-pyridyl substituted with from one to four moieties independently selected from the group consisting of halogen and haloalkyl, provided that at least one moiety is haloalkyl;

R¹ and R² are independently selected from the group consisting of halogen, R^b, and OR^b,

wherein R^b is selected from the group consisting of hydrogen, alkyl, and acyl;

Y is -L-A²- wherein:

A) L is -NHC(=X)NH-; and

A² is selected from the group consisting of:

1) phenyl, optionally substituted by halogen, haloalkyl,

phenoxy, alkoxy, alkyl, nitro, -MeS, -PhSO₂, dialkylamino, alkylsulfonyl, benzylsulfonyl, S(phenyl substituted by halogen); and

2) cyclopropyl, cyclohexyl, and naphthyl, each of which is optionally substituted by nitro; or

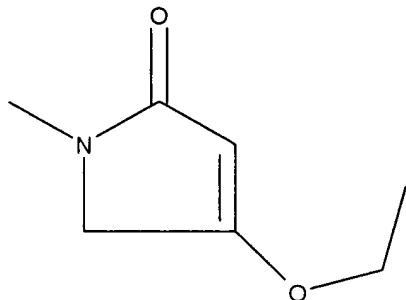
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B) L is $-\text{NHC}(=\text{O})\text{CH}(\text{R}^3)-$;

wherein R^3 is selected from the group consisting of hydrogen, alkyl, halogen, and acyloxy; and

A^2 is selected from the group consisting of:

- 1) phenyl, optionally substituted by halogen, nitro, or alkoxy;
- 2) thienyl;
- 3) imidazolyl; and
- 4)



C) L is $-\text{CH}(\text{R}^3)\text{N}(\text{R}^5)\text{CH}_2-$

wherein:

R^3 is N-alkylcarbamoyl or alkoxy carbonyl; and

R^5 is hydrogen or acyl; and

A^2 is selected from the group consisting of

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1) phenyl, optionally substituted by alkyl, alkoxy, halogen, nitro, haloalkyl, or phenoxy; and

2) naphthyl; or

D) L is $-\text{CH}(\text{R}^3)\text{NHC}(=\text{O})-$;

wherein R^3 is N-alkylcarbamoyl or alkoxy carbonyl; and

A^2 is selected from the group consisting of:

1) phenyl, optionally substituted by alkoxy, halogen, nitro, haloalkyl, phenoxy, or phenyl; and

2) cycloalkyl; or

E) L is $-\text{O}-\text{NHC}(=\text{O})-$; and

A^2 is phenyl substituted by alkyl;

or Y is L^1-A^3- wherein:

A) L^1 is $-\text{NHC}(=\text{O})(\text{CH}_2)_2-$ and A^3 is phenyl substituted by alkyl; or

B) L^1 is $-\text{NHC}(=\text{S})\text{NHCH}_2-$, and A^3 is phenyl; or

C) L^1 is $-\text{NHC}(=\text{O})\text{CH}(\text{alkyl})\text{S}-$ and A^3 is phenyl; or

D) L^1 is selected from the group consisting of:

1) $-\text{NHC}(=\text{O})\text{OCH}_2-$,

2) $-\text{NHC}(=\text{O})(\text{CH}_2)_2-$,

3) $-\text{NHC}(=\text{O})\text{NHCH}_2-$,

4) $-\text{NHC}(=\text{S})\text{NHCH}_2-$,

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5) $-\text{N}(\text{alkyl})\text{C}(=\text{O})\text{CH}_2\text{O}-$, and

6) $-\text{NHC}(=\text{O})\text{CH}_2\text{O}-$;

R^1 is hydrogen;

R^2 is selected from the group consisting of hydrogen and alkoxy carbonyl;

A^3 is selected from the group consisting of:

1) phenyl, optionally substituted by halogen, alkyl, phenyl, or hydroxyl;

2) fluorenyl;

3) pyridyl, optionally substituted by halogen or haloalkyl;

4) thiadiazolyl substituted by alkyl;

5) benzthiazolyl, optionally substituted by halogen or by phenyl substituted by halogen;

6) quinolinyl substituted by haloalkyl;

7) triazolyl substituted by alkyl or phenyl;

8) tetrazolyl substituted by alkyl or cycloalkyl;

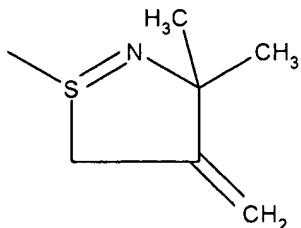
9) pyrimidyl substituted by alkyl;

10) benzoxazolyl;

11) imidazolyl substituted by alkyl; and

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12)



or

E) L^1 is $-\text{NHC}(=\text{O})\text{CHCR}^8\text{R}^9-$;
 R^1 is hydrogen;
 R^2 , R^8 , and R^9 are independently selected from the group consisting of hydrogen and alkyl; and

A^3 is selected from the group consisting of

- 1) benzoyl optionally substituted by alkyl, and
- 2) benzyloxycarbonyl; or

F) L^1 is $-\text{NHC}(=\text{O})\text{CH}(\text{alkyl})\text{SO}-$ $-\text{NHC}(=\text{O})\text{CH}(\text{alkyl})\text{SO}-$
 R^1 and R^2 are each hydrogen; and
 A^3 is phenyl;

wherein the left hand sides of L and L^1 are attached to the central carbon atoms of formula I.